JULY–AUGUST 1983
Seventy-five Cents
VOLUME 74 NO. 4
ISSN 0008-1116

California GARDEN



HORTICULTURE CALENDAR

CALIFORNIA GARDEN EXHIBIT & MAGAZINE SALE
GARDEN SECTION, SOUTHERN CALIFORNIA EXPOSITION
DEL MAR, CALIFORNIA
DAILY 10:00 AM TO 6:00 PM
JUNE 17 THROUGH JULY 4, 1983

July 10 — **San Diego County Dahlia Society Specimen Bloom Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sun: 1:00 to 4:00 p.m. Free

July 17 — **The Garden Club of General Dynamics/Convair 33rd Summer Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sun: 1:00 to 5:00 p.m. Free

July 23, 24 — **San Diego Gesneriad Society Seventh Annual Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat: Noon to 5:00 p.m. Sun: 10:00 a.m. to 5:00 p.m. Free

July 30, 31 — **San Miguel Branch of the American Begonia Society Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat: 1:00 to 5:00 p.m. Sun: 10:00 a.m. to 5:00 p.m. Free

August 6, 7 — **San Diego County Dahlia Society Annual Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat: 2:00 to 5:00 p.m. Sun: 10:00 a.m. to 4:30 p.m. Free

August 20, 21 — **San Diego Fern Society Fifth Annual Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat: 1:00 to 5:00 p.m. Sun: 10:00 a.m. to 5:00 p.m. Free

August 27, 28 — **San Diego Turtle and Tortoise Ninth Annual Show**
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat & Sun: 10:00 a.m. to 5:00 p.m. Free

GARDEN STUDY COURSE

The San Diego Floral Association and Palomar District of the California Garden Clubs, Inc., are sponsoring a series of four Garden Study Courses. They will be open to all interested in a comprehensive study of gardening taught by qualified instructors.

Course I will consist of two days of instruction on Saturday, **October 22**, and Saturday, **October 29**, 1983, from 8:30 a.m. to approximately 4:00 p.m. The classes will be held at Miramar College, San Diego; Kartuz Greenhouses, Vista, California; and Quail Botanical Gardens, Encinitas, California.

Course I will cover the following: Plant Structure & Function; Pests, Diseases, Physiological Problems—Prevention & Control; Soils—Definition, Characteristics & Functions; Tour of a Teaching Greenhouse; History & Purposes of a Botanical Garden.

Instructors for this course are Sheri Holladay, State Accredited Instructor in Horticulture, San Diego Community Colleges; Steve Brigham, State Accredited Instructor in Horticulture, and Ornamental Horticulture; and Allison Voss, author, lecturer, and photographer of horticultural subjects.

Students may take the courses for credit leading to a certificate as a National Council Accredited Garden Consultant, however, there is no obligation to take them for credit.

For further information, fees and reservations call the San Diego Floral Association office: 232-5762 between 10:00 a.m. and 3:00 p.m., Monday through Friday.

Published by
San Diego Floral Association
for 73 years.

PUBLICATION STAFF

EDITOR
Allethe Macdonald

ASSOCIATE EDITORS
Skipper Cope
Barbara Jones
Dewey Thaisz

PRODUCTION EDITOR
Robert O. Brooks

CONSULTING EDITOR
Dr. Donald P. Watson, Prof. Emeritus
Dept. of Horticulture, Univ. of Hawaii

CONTRIBUTING EDITORS
Carol Greentree
Bill Gunther
Sharon Siegan
Allison Voss

DEPARTMENT EDITORS

Advertising	*Penny Bunker*
Circulation	*Penny Bunker*
Historical	*Ethel Hoyt*
Horticulture	*George James*
Vegetables	*Rosalie Garcia*

Manuscripts are invited. All manuscripts and illustrations submitted will be handled carefully but we cannot assume responsibility for their safety. All submissions must be accompanied by return postage. *Hortus Third* is the authority for all botanical names used in this magazine. All opinions expressed are those of the authors and do not necessarily reflect the views of the editors or the San Diego Floral Association. Address all editorial communications to: *California Garden*, Casa del Prado, Balboa Park, San Diego, CA 92101.

© *California Garden* (USPS 084-020), a non-profit publication, is published bi-monthly by the San Diego Floral Association, Inc., a non-profit horticultural organization. Subscriptions are $4.00 for one year, $7.50 for two years. Entered as second-class matter, December 8, 1910, at the Post Office in San Diego, California, under the Act of March 3, 1879.

California SINCE 1909
GARDEN
LIBRARY OF CONGRESS NO. ISSN 0008-1116

San Diego Floral Association & Garden Center
Casa del Prado, Balboa Park, San Diego, CA 92101
Monday through Friday, 10:00 a.m. to 3:00 p.m.
(619) 232-5762

JULY — AUGUST 1983

VOLUME 74 NUMBER 4

CONTENTS

101 ZINNIAS *Barbara S. Jones*
103 SOLANUM QUITOENSE *Allison Voss*
105 HOW TO BUILD AN ELEGANT PATIO *Dewey deButts Thaisz*
108 A NATIVE SAN DIEGAN REMINISCES *Lois K. Donahue*
109 HERBS IN POTS *Rosalie Garcia*
111 CLOCKVINES *Steve Brigham*
113 VICTORIAN GARDENS READING LIST *Carol Greentree*
115 AFRICAN LINDEN TREE *Marjorie Halterman*
116 OXALIS MEGALORRHIZA *Bill Gunther*
119 50 YEARS AGO *Carol Greentree*
121 GARDENING WITH WORMS *John E. Miller*
123 NOW IS THE TIME *Penny Bunker*
126 BOOK REVIEW *Russell P. MacFall*

FRONT COVER:
Architectural illustrator **Susan Simmen**'s drawing of one of the many Victorian homes in the San Diego area.

BACK COVER:
Reproduction of a poster by the U.S. Department of Agriculture Forest Service in cooperation with Walt Disney Productions. Courtesy of the Cleveland National Forest Office.

POSTMASTER: SEND FORM 3579 TO:
CALIFORNIA GARDEN, CASA DEL PRADO, SAN DIEGO, CA 92101

The San Diego Floral Association and Garden Center

Under the sponsorship of the Park & Recreation Department, City of San Diego

OFFICERS

President
Mrs. Harley Cope (459-7688)
6608 Avenida Bizarro
La Jolla, CA 92037

First Vice President
Mrs. Vera Rauch

Second Vice President
Mrs. B. B. Puddy

Treasurer
Mrs. Harry McAllister

Corresponding Secretary
Mrs. Mary A. Boykins

Recording Secretary
Mrs. William E. Walker

Past President
Mrs. Louis J. Kulot

DIRECTORS

Term 1980-1983
Mrs. H. O. Nelson
Mrs. John Pasek
Mrs. William Rathmann

Term 1981-1984
Mrs. William F. Green
Mr. Jan Prell
Mrs. David Westheim

Term 1982-1985
Mr. Walter E. Bunker
Mr. Bill Gunther
Mr. Bev Puddy

HONORARY LIFE MEMBERS

Ethel Hoyt
Ada Perry
Samuel Hamill
Mary Marston
Margaret Baldwin

FLOWER ARRANGERS GUILD

Pres: Mrs. John Farleigh (295-5404)
2217 Whitman St, San Diego 92103
1st Thurs, Casa del Prado, 9:00 a.m.

AFFILIATE MEMBERS

ALFRED D. ROBINSON BRANCH, AMERICAN BEGONIA SOCIETY
Pres: Mrs. George Bauhan (459-9024)
5630 Bellevue Ave., La Jolla 92037
2nd Tues,Home of Members,10:30 a.m.

AMERICAN BAMBOO SOCIETY
Pres: Mr. Richard A. Haubrich (481-9869)
1101 San Leon Ct, Solana Beach 92075

BALBOA PARK AFRICAN VIOLET SOCIETY
Pres: Mrs. Diane Wilken (697-2884)
7428 Rowena St, San Diego 92119
4th Mon,Casa del Prado,7:30 p.m.

BERNARDO GARDENERS' CLUB
Pres: Mrs. A. Dean Enyeart (485-8739)
11457 Aliento Ct, San Diego 92127
3rd Thurs, Gendale S&L, 1:30 p.m.

CALIFORNIA NATIVE PLANT SOCIETY
Pres: Mrs. Jeanne Hawkins (436-2805)
1678 Falcon Hill Ct, Cardiff 92007
4th Wed, Casa del Prado, 7:30 p.m.

CARLSBAD GARDEN CLUB
Pres: Mrs. Anne Clarke (753-7424)
3308 Azahar Pl, Carlsbad 92008
1st Fri,Carlsbad Community Center
3096 Harding St,Carlsbad,1:30 p.m.

CHULA VISTA GARDEN CLUB
Pres: Mrs. William Hedenkamp (422-2978)
515 Second Ave, Chula Vista 92010
3rd Wed,Rohr Park Manor,Sweetwater Rd, Bonita, 1:00 p.m.

CONVAIR GARDEN CLUB
Pres: Mrs. Virginia Soderberg (582-7098)
6197 Arno Dr, San Diego 92120
1st Wed, Casa del Prado, 7:30 p.m.

CROWN GARDEN CLUB
Pres: Mrs. H. B. West (435-1673)
1514 Maria Pl, Coronado 92118
4th Thurs,Coronado Library,9:00 a.m.

EXOTIC PLANT SOCIETY
Pres: Mr. Ben Hardy (448-0659)
9443 E. Heaney Cir, Santee 92071
3rd Wed,1235 Avocado,ElCajon,7:30p.m.

FALLBROOK GARDEN CLUB
Pres: Mr. William A. Morgan (733-0248)
2559 Via Milpas, Fallbrook 92028
Last Thurs ea mo(except 3rd Thurs Oct, Nov,Dec,St. Peter's Church, 10:00 a.m.

FLEURS DE LEAGUE, LA JOLLA
Pres: Mrs. Louis W. Mack, Jr. (454-7890)
P.O. Box 2251, La Jolla 92037
2nd Mon,Home of Members, 10:30 a.m.

HEARTLAND AFRICAN VIOLET SOCIETY
Pres: Gwen Frankhouser (442-4993)
1592 Murray Ave, El Cajon 92020
2nd Tue,Wells Park,1153 E. Madison Ave, El Cajon, 7:00 p.m.

IKEBANA INTERNATIONAL,CHAPTER 119
Pres: Mrs. Robert Meredith (270-5795)
5343 Soledad Mountain Rd,San Diego 92109
4th Wed, Casa del Prado, 10:00 a.m.

LA JOLLA GARDEN CLUB
Pres: Mrs. Robert Boynton (481-0263)
376 Bellaire St, Del Mar 92014
3rd Tues,LaJolla Woman's Club, 1:30 p.m.

LAS JARDINERAS
Pres: Mrs. Stoddard Martin (454-4883)
7538 Caminito Avola, La Jolla 92037
3rd Mon,Home of Members, 10:00 a.m.

OHARA SCHOOL OF IKEBANA, LA JOLLA
Pres: Mrs. Rose N. Itano (457-4626)
8588 Prestwick Dr, La Jolla 92037

OHARA SCHOOL OF IKEBANA, SAN DIEGO
Pres: Mrs. Walter Bourland (276-4667)
2936 Havasupai, San Diego 92117

ORGANIC GARDENING CLUB
Pres: Mr. Will Kinney (724-2163)
217 Escondido Ave, Vista 92083
3rd Fri, Casa del Prado, 7:30 p.m.

PALOMAR CACTUS & SUCCULENT SOCIETY
Pres: Mrs. Eleanore Hewitt (753-3651)
1725 Caliban Dr, Encinitas 92024

PALOMAR DISTRICT,CALIFORNIA GARDEN CLUB, INC.
Dir: Mrs. Edwin R. Gould (475-8996)
2111 Rachael Ave, San Diego 92139

POINT LOMA GARDEN CLUB
Pres: Mrs. L. L. Cottingham (222-4616)
735 Cordova St, San Diego 92107
2nd Wed,Westminister Presbyterian Church Talbot & Cannon, 10:00 a.m.

POWAY VALLEY GARDEN CLUB
Pres: Mrs. Hoyt Jeter (485-0694)
17459 Tam O'Shanter Dr, Poway 92064
2nd Wed, Hally's Garden Room
13519 Poway Rd, Poway, 9:00 a.m.

SAN CARLOS GARDEN CLUB
Pres: Mrs. Rhea Sands (465-3661)
5405 Baltimore Dr, No. 9, La Mesa 92041
4th Tue, Home of Members, 9:30 a.m.

SAN DIEGO BONSAI CLUB, INC.
Pres: Mr. Robert C. May (286-8423)
7553 Cleark Sky Rd, San Diego 92120
2nd Sun, Casa del Prado, 1:00 p.m.

SAN DIEGO BOTANICAL GARDEN FOUNDATION, INC.
Pres: CDR James H. Ard (276-6398)
3031 Karnes Way, San Diego 92117

SAN DIEGO BROMELIAD SOCIETY
Pres: Mrs. Jennie Wisley (469-9151)
8454 El Paso, La Mesa 92041
1st Thurs, Bysantine Catholic Church, 2235 Galahad Rd,Serra Mesa, 8:00 p.m.

SAN DIEGO CACTUS & SUCCULENT SOCIETY
Pres: Mr. Frank Thrombley (487-5544)
16333 Roca Dr, San Diego 92128
2nd Sat, Casa del Prado, 1:30 p.m.

SAN DIEGO CAMELLIA SOCIETY
Pres: Mr. John Nichols (435-4971)
1026 Flora Ave, Coronado 92118
3rd Wed, Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY BRANCH, NATIONAL FUCHSIA SOCIETY
Pres: Mr. Tony Klein (436-0997)
1335 Walnut View Dr, Encinitas 92024
2nd Thurs,So.Oceanside Elm.School,8:pm

SAN DIEGO COUNTY DAHLIA SOCIETY
Pres: Mr. Martin Walsh (277-5165)
4077 Mt. Everest Blvd, San Diego 92111
4th Tue, Casa del Prado, 7:30 p.m.

SAN DIEGO COUNTY HERB SOCIETY
Pres: Mrs. Betty Stroot (745-9568)
1230 Via Rancho Parkway,Escondido 92025
2nd Sat, Home of Members, 11:00 a.m.
(No meetings in July and August)

SAN DIEGO COUNTY ORCHID SOCIETY
Pres: Mr. John Walters (286-1976)
6810 Caminito del Greco, San Diego 92120
1st Tue, Casa del Prado, 7:30 p.m.

SAN DIEGO DAYTIME AFRICAN VIOLET SOC.
Pres: Mr. Leonard King (298-3754)
3327 - 28th St, San Diego 92104
2nd Mon,Fellowship Hall, Christ United Methodist Church,3295 Meade, 12 Noon

SAN DIEGO EPIPHYLLUM SOCIETY
Pres: Mrs. Elinor Latimer (463-1655)
5990 Lake Murry Blvd, La Mesa 92041
2nd Wed, Casa del Prado, 7:30 p.m.

SAN DIEGO FERN SOCIETY
Pres: Mr. John F. Dunlap (282-4033)
2401 Capitan Ave, San Diego 92104
3rd Thurs, Casa del Prado, 7:30 p.m.

SAN DIEGO FUCHSIA & SHADE PLANT CLUB
Pres: Mrs. Eugene Cooper (295-7938)
4444 Arista Dr, San Diego 92103
2nd Mon, Casa del Prado, 7:30 p.m.

SAN DIEGO GERANIUM SOCIETY
Pres: Mr. George Plaisted (583-9551)
6356 Delbarton St, San Diego 92120
2nd Tue, Casa del Prado, 7:30 p.m.

SAN DIEGO GESNERIAD SOCIETY
Pres: Erica Specht (270-8594)
3860 Hiawatha Way, San Diego 92117
1st Thurs, Casa del Prado, 7:30 p.m.

SAN DIEGO—IMPERIAL COUNTIES IRIS SOC.
Pres: Mr. Don Maurizio (298-5296)
3970 - 5th Ave, No. 9, San Diego 92103
3rd Sun, Glendale Federal S&L,
740 Lomas Santa Fe,Solana Beach,1:00p.m.

SAN DIEGO ROSE SOCIETY
Pres: Mr. G. E. (Bud) Faber (222-2272)
4607 Orchard Ave, San Diego 92107
3rd Mon, Casa del Prado, 7:30 p.m.

SOUTHWEST GROUP, JUDGES COUNCIL
Chair: Mrs. Benjamin Berry (435-2562)
471 Country Club Lane, Coronado 92118
1st Wed, Casa del Prado, 10:30 a.m.

SOUTHWEST HEMEROCALLIS SOCIETY
Pres: Mr. Lawrence Smith (748-3383)
13634 Cynthia Lane, Poway 92064
1st Sat, Feb-Apr-Jun-Sep-Nov, 10:00 a.m.
Glendale Federal Savings & Loan
740 Lomas Santa Fe, Solana Beach

VILLAGE GARDEN CLUB OF LA JOLLA
Pres: Mrs. Lynn Boze (455-5405)
8287 Caminito Maritimo,La Jolla 92037
4th Thurs, La Jolla United Methodist
6063 La Jolla Blvd, La Jolla, 1:00 p.m.

PROFESSIONAL DIVISION

CALIFORNIA ASSOCIATION OF NURSERYMEN, SAN DIEGO CHAPTER
Pres: Mr. Walter Anderson, Jr. (224-8271)
3642 Enterprise St, San Diego 92110

OTHER GARDEN CLUBS

(Cont. on page 127)

ZINNIAS

Barbara S. Jones



Glamorous new zinnia introductions which are currently available.

National Garden Bureau photo

ZINNIAS ARE COLORFUL and hardy and have been popular plants in San Diego gardens for over 100 years. All zinnias are native to the warmer Americas and modern varieties are developed from the purple-red species native to Mexico, *Zinnia elegans*. This insignificant plant, tramped on by Conquistadores and colonists for two centuries, was discovered in the 18th century when the identifying and domesticating of wildflowers was considered an extremely elegant hobby.

Currently there are over 60 different zinnias available that vary in color, form, shape, and size. The flower colors are vibrant and in almost every hue except true blue. There are even chartreuse-green ones. They vary in size from 6-inch tall mound-shaped plants with 1½-inch flowers to those that stand 3 feet tall with flowers 5 inches across. All are attractive and long lasting in the garden and when cut, the stiff-hairy stems last well in water and hold the flower parts erect.

Zinnias are heat lovers and are in their full glory in midsummer and early fall. They grow rapidly from seed to flower in approximately 45 days. They grow best in full sun in a rich garden soil. (Do not do well in an acid soil.) For best results they should be fed and watered generously. In dry weather they will do well with periodic soaking of the soil if the soil is mulched around the plant. (During water shortage periods when I was young, I remember that water basins were dug around the plants to prevent run-off and waste of the precious water.)

Seeds should be planted in May and June. Several plantings, about 3 weeks apart, will give longer bloom. (A rule-of-thumb is to plant them at the same time tomatoes are planted.) Seeds will not germinate in temperatures under 70° F. (Nursery plants should be set out in July near the coast and as early as June inland.) To encourage branching, the tips of young plants should be pinched-out when they have 3 to 4 pairs of leaves. When growing large blooms for cutting, the side shoots should be removed when small. These plants may need staking.

Zinnias are usually planted in massed beds. Plants must be far enough apart to have air circulation. This will help to prevent mildew. Near the coast or



Traditional zinnias used in a classic upright arrangement.
National Garden Bureau photo

where there is high humidity, mildew can be a problem. In the fall, with the longer nights and more dew, mildew will definitely be a problem. To avoid it for as long as possible, do not water the plants from the top and soak them early in the day so that they can dry out before nightfall. Usually only the stems and leaves are affected, so the flowers still add color to the garden during a period when few flowers are blooming.

Zinnias are beautiful pot plants in patios and around swimming pools. The miniatures are particularly attractive on tables and ledges. This annual is one plant that should be in every southern California garden. □

Barbara Jones, a member of the staff and former editor of *California Garden* magazine, is a graduate scientist (Botany) and writes for scientific and gardening publications.

Editor's note: Research indicates that irregular right hand column borders are easier to read. Your comment will be appreciated.

THE MODERN ZINNIAS

HORACE G. KEESLING

(Excerpt from *California Garden* magazine, July 1922 issue)

Those of us who are familiar with the old-fashioned zinnias of our boyhood and girlhood days can realize more fully than any one else the wonderful changes that have occurred in the development of this common garden flower for about the best that could have been said of them in the beginning might be that they are better than no flowers in spite of their stiffness and indifferent coloring. . . .

Fortunate is he who can walk with Burbank* in his garden and gather wisdom from his every word and gesture as he calls attention to the merits of this flower that has a band around its neck that signifies its selection for seed bearing, or to the faults of another in his trial rows that means its elimination. Stopping in the midst of the blazing zinnias and calling attention to a number of extra fine specimens in size, form, and coloring Mr. Burbank remarked: "Twenty-five cents worth of zinnia seed may produce more fine flowers than twenty-five dollars worth of dahlia bulbs."

Plainly his remark was not intended to be detrimental to the very desirable dahlias of the present day but rather to emphasize the great returns in quantity and quality of flowers a little money will bring. . . . B.S.J.

*Luther Burbank, a world renouned plant hybridizer, developed many of the food and ornamental plants that we know today. His nursery was in Santa Rosa, California. Arbor Day in California is on his birthday.



THE BRIGHT ORANGE FRUIT OF THE LULO IS CALLED NARANJILLA (LITTLE ORANGE) IN SPANISH, BUT THE AROMA AS WELL AS THE FLAVOR IS REMINISCENT OF STRAWBERRIES.
Photo by Allison Voss

SOLANUM QUITOENSE

Allison Voss

THE FASCINATING LULO TREE

Solanum quitoense, an unusual fruit that belongs to the family Solanaceae, is now growing at Quail Botanical Gardens, Encinitas, California. To quote Charles B. Heiser, Jr., from his book *Nightshades, the Paradoxical Plants*: "Of all the plant families that have figured conspicuously in human history, literature, and science, the Solanaceae, or nightshades, are among the most interesting. Some members of this family are counted among plants that are most useful and beneficial to man. Others, because of the alkaloids they contain, can be deadly." Members of this family range from food plants, such as potato, tomato, pepper, eggplant, wonder-berry plant, lulo, and pepino; to poisonous and medicinal plants, deadly nightshade, henbane, mandrake, belladonna, and jimson weed; to garden ornamentals, petunia, salpiglossis, datura, and brugmansia; and that carefully cultivated "weed" tobacco.

The genus name, *Solanum*, comes from the Latin word *solamen*, meaning quieting. Some species do have alkaloids that will produce a quieting effect, sometimes permanently.

S. quitoense, or the lulo, is little known outside of western South America. It is called lulo (a

Quechuan Indian word meaning egg) in Colombia, and naranjilla (Spanish for little orange) in Ecuador, the only two countries where the plant is indigenous. The origin of the lulo must almost certainly have been either in Colombia or Ecuador, but no one knows for sure. The earliest known record of its cultivation is from the writings of a traveler to Popayan, Colombia, in 1625. However, it is believed that the plant could have been introduced at a much earlier time by the Incas.

The interest in this plant revolves around its orange, 2-inch diameter fruits (or berries) that are covered with long, rather stiff hairs that rub off easily. The aroma as well as the flavor is reminiscent of strawberries. The berries are gathered, crated, and transported to markets throughout Colombia and Ecuador. The green pulp of the lulo is sought by everyone from the street-corner vendors to the chefs in the poshest hotels to make refrescos (cold drinks), sherbets, or other desserts.

Lulos grow to 6 feet tall, with huge leaves up to 2 feet in diameter. The stems and leaves are densely covered with soft hairs. On *S. quitoense* the hairs on the stem, on the back side of the leaves, and on the veins of the upper surface of the leaves contain a pigment that gives the plant a fuzzy, purplish cast; especially on the new growth. In order to avoid confusion, the only true lulo is *S. quitoense*, however, there are other related species of *Solanum* that are edible. Some of the other more or less edible species that are in the collection at Quail Botanical Gardens are *S. hirsutissima, S. cocona*, and *S. georgiana*.

The 1-inch white flowers are unusual in the manner that they are pollinated. The anthers have small pores at the tips through which the pollen is released. Normally they are visited by a bumblebee, who when landing on the flower, clamps on tightly, and then by buzzing violently causes the pollen to pop out of the pores. Lacking a cooperative bumblebee at Quail, the lulos are pollinated by using a tuning fork to provide the necessary vibrations!

Lulos are not easy to grow. Most are cultivated between 3500 and 7500 feet. In recent years they have been introduced to Costa Rica and Panama. They have exacting climactic requirements, are heavy feeders, and are prone to soil-borne diseases. With proper fertilization and disease control, lulos can be grown to fruition for three to six years. There are several species in a collection at Quail Botanical Gardens. □

Author's note: If you would like to try growing one of these unusual trees, they are available in the San Diego area in a speciality tree nursery.

Allison Voss is an author, lecturer, and photographer of horticultural subjects.

GARDEN FRAGRANCE

The beauty of a garden lies not only in its blooming flowers, but in the variety of its fragrances. We cannot always see our gardens for we are indoors much of the time, but garden fragrance is with us indoors from cut flowers or from the scent that drifts in an open window from garden plants.

Sometimes, a fragrance comes from flowers that are barely visible like those of the sweet olive, *Osmanthus fragrans*, which hides its tiny, intensely fragrant blooms among the framework of its foliage. To the other extreme, there are the large heavily scented gardenia blooms. A single flower floating in a glass bowl or a branch of osmanthus will perfume a room for days.

The inconspicuous blooms of the sweet olive though, are among the most intensely fragrant–a sweet fruity fragrance–to be grown anywhere. This attractive evergreen shrub of medium size with glossy green leaves can be grown outdoors or in containers.

For more garden fragrance, try the jasmines, either as a shrub or a vine, which flower in spring and early summer. Different varieties have light yellow, creamy white, or pinkish blooms. The shrubby-vine called star jasmine is not a true jasmine, but its flowers are intensely fragrant. Glossy deep green foliage is covered with masses of white pinwheels from April and into July in some areas.

Orange blossoms, traditionally, have long been associated with fragrance. Happily, citrus trees are "in style" again and more of them are being used in home landscaping.

Garden fragrances can be found in a wide range of plants from the exquisite violet to the majestic magnolia. Take time to appreciate them.

A.M.

Susan Simmen
ARCHITECTURAL ILLUSTRATOR
Box 571 – Bonita, CA 92002
(619) 421-7892

HOW TO BUILD AN ELEGANT PATIO

Dewey deButts Thaisz

A BRICK PATIO immediately enhances and creates the feeling of elegance and at the same time affords an attractive and rugged area for entertaining or relaxing. A homeowner with less than average construction ability can easily build one economically.

It is not as difficult as you may think. I have built many brick patios and I am a 112-pound weakling (a female, too). I learned in a community college landscape construction class. It was so easy! Then I taught my husband and together we have installed about 10 patios.

The technique I use is the bricks-in-dry-mortar method. I place the bricks in a bed of sand, fill the spaces between the bricks with a dry mortar, then sprinkle with water to harden the mortar.

Two of us can finish a 10X10-foot patio, 100 square feet, in a weekend; the first day we pick up the materials or order them for delivery, and the second day we actually do the labor, about 10 hours for each of us.

The current cost in the San Diego area is a little over $1.50 per square foot for materials. Here is a list of materials needed for a 100-square-foot patio:

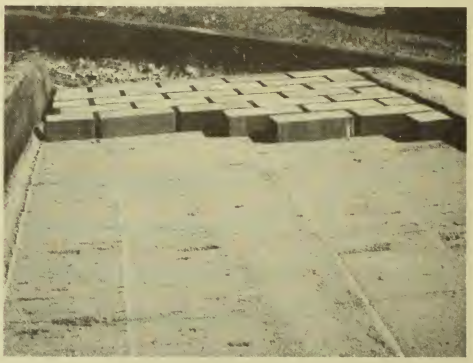
Materials to Purchase

2/3 cubic yard masonry sand
475 standard red paving bricks
8 cubic feet dry ready-mixed mortar
40 feet redwood 2X4-inch headers
Nonspecific systemic herbicide
4-inch cold chisel
Inexpensive 2X4-inch lumber
to make a screed and a tamper
Burlap bag

Materials to Have on Hand

15 8-inch stakes (cut from scrap redwood)
Broom
Shovel
Paint brush or whisk broom
Old boards or plywood
String
Gloves
Rubber mallet

If you are convinced that you want to build your own brick patio, follow these directions. First select a site. Any site will do as long as it is not too steep. A brick patio does not need to be perfectly level; in fact a slight incline aids drainage. If it is necessary to reduce the grade, build up the shallow end with soil or terrace the bricks (making two or more level areas, each one step lower than the other).



Terraced levels framed by railroad ties and redwood headers on the side. The railroad ties give extra strength. After the sand is tamped and screed to the level required, the bricks are laid in the chosen pattern. Dewey Thaisz photo

Walkways can be quite steep; the rough brick surface provides enough traction for climbing a grade. If you are building a walkway, it is best to make it at least 5 feet wide so two people can comfortably walk side-by-side.

Avoid selecting an area where shallow shrub or tree roots could emerge and rupture the brick work. If a tree has been shallowly watered throughout its life, its roots run near the soil surface; if it has been deeply watered the roots usually grow down, seeking water at a deeper level.

If the site contains bermuda grass or other persistent ground cover, spray with a nonspecific systemic herbicide about one week before digging it out. The herbicide kills plants down to the roots and ensures that nothing will grow up through the mortar after the bricks are set. Bermuda grass may require

two applications one week apart.

After you are rid of the grass, roughly stake out and string the perimeter of the area to be bricked in. This helps you visualize the size of the finished area to determine if it suits your needs. Then take an exact plot measurement to determine the quantity of materials needed. Select a brick pattern early because it may affect the dimensions of the plot. The standard patterns are running bond, basket weave, jack-on-jack, and herringbone, but use your imagination for variations. If possible, plan so that a minimum of bricks need to be cut.

To calculate the number of bricks needed for a mortared patio, add a half-inch mortar joint allowance to the length and width of the brick you will be using. Be sure to measure as the advertised brick size may not be the actual size. Multiply the length by the width (in inches) of the brick surface that will be visible. Divide the result into 144 to get the number of bricks per square foot. Then multiply the number of bricks per square foot by the number of square feet in the proposed patio. Add five percent for cutting and breakage.

I used red building bricks. These are economical, about 22¢ each, and are small enough to handle easily. They are generally 8 inches long by 4 inches wide by 2½ inches deep. They can be purchased at bulk prices from a local building supply or gardening center. (Shop around for the best price.)

To calculate the mortar needed, figure 8 cubic feet for each 100 square feet of bricks. Also calculate the amount of redwood headers needed for the outer perimeter of the plot. If you choose a grid pattern, redwood within the patio design, include that in your calculation.

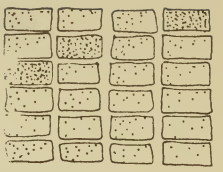
To calculate the amount of masonry sand, multiply the number of feet by one-third (4 inches of sand) to get the number of cubic feet. Then divide by 27 to get the number of cubic yards of sand needed for the patio. I get more than needed in case I figured wrong or the plot was dug too deeply. Any left over sand can be used to amend garden soil.

After assembling the materials, dig the plot at least 6¼ inches below the level of the proposed patio surface (4 inches for the sand and 2¼ inches for the brick). Enclose the area with 2X4 redwood headers on edge, and stake them on the outer edge for stability where the stakes will not get in the way of the bricks. Drive the stakes below the top of the headers and secure them to the headers with nails. Later, the fill soil will cover the tops of the stakes. Water the loosened soil within the headers to compact it.

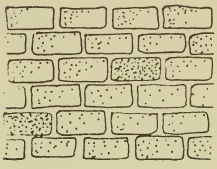
Then fill the area with at least 4 inches of masonry sand up to the exact thickness of a brick below the header surface. Be sure to measure the brick so the upper surface of the finished floor will be level with the headers. Roughly level the sand with a screed, a long board used for leveling the surface to a uniform height below the headers. A screed is normally a 2X4 that is an inch shorter than the width of the plot. Nail wood extensions along each side extending 2 to 3 inches past the length of the plot and 2-3/8 inches above the bottom of the screed. The extensions ride on top of the headers causing the 2X4 to level the sand as it is pulled along. The extensions should be nailed so that the level is slightly less than the depth of the brick being used (i.e. 2-3/8 inches for a 2½ inch brick). When the brick is placed on the sand, the surface will be level or slightly higher than the header. One person can handle a short screed; one person on each end is needed for a screed longer than 7 feet. For very wide patios, a temporary header is required in the middle to aid screeding.



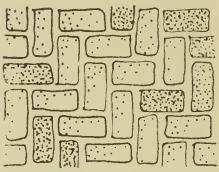
Basket Weave



Jack on Jack



Running Bond



Herringbone

Drawings by Carol Greentree

After screeding, wet the sand and tamp it with something flat and heavy to compress it. A special water-filled drum may be rented, but a wooden tamper can be built from scrap lumber. An easy method of tamping is to walk on a couple of ¾-inch plywood scraps, about 18 inches square, moving them as you go.

After tamping add more sand if necessary, and screed again to bring up the surface to the level required.

Being careful not to disturb the sand or headers, start laying the bricks in your chosen pattern on top of the screeded sand. Start in a corner and allow a half-inch space on all sides to hold the dry mortar. Walk or kneel on wide boards placed

across the bricks already in place. This helps you reach the inner regions of the plot without disturbing the bricks.

In large areas, stretch guide strings in both directions across the plot to help lay the bricks in straight lines.

Break the bricks to fit into the ends of the plot using a 4-inch-wide cold chisel. Mark the break spot with a pencil, place the brick on a bed of sand to absorb the shock, hold the cold chisel upright on the pencil mark, and strike the chisel handle sharply with a rubber mallet. The brick should break squarely on the mark. If not, gently chip away any uneven pieces with the chisel.

When all bricks are in place, stand back a few feet and "eyeball" to see that all lines appear straight and no bricks are tilted. When satisfied with the bricks, prepare to add the dry mortar. The bricks must be perfectly dry before spreading mortar or it will harden where and when it is not supposed to.

Without distrubing the bricks, use a shovel to evenly distribute a moderate amount of mortar on the surface of the bricks. Gently sweep the mortar into the cracks between the bricks with a long-handled broom. When the cracks are full, use a narrow stick or piece of lath to pack the mortar. Then sweep more mortar into the cracks until it reaches the top of the bricks and headers.

Sweep away the bulk of the excess mortar. Then brush with a whisk broom or paint brush to thoroughly clean the tops of each brick. This makes scrubbing up easier after wetting the mortar.

When the bricks are reasonably clean, wet the mortar with an extremely fine water spray from a hose nozzle. Be very careful not to wash any mortar away or accumulate too much water in any one spot. Continue wetting with a fine spray until the mortar and bricks are saturated and the water pools clear (about 15 minutes).

After waiting about one and a half hours, thoroughly clean any excess mortar off the tops of the bricks with a wet burlap bag. Kneel on boards to distribute your weight over the partially set bricks. Scrub as hard as possible without moving the bricks or cracking the mortar. Rinse the burlap frequently.

Allow the mortar to set up overnight before walking on the new patio. To ensure the mortar sets up well, particularly on a hot day, spray again once or twice before dark or cover the bricks with boards or wet cloths. Mortar weakens if it dries out too fast.

Now you have a solid and durable surface to give years of pleasure. The patio is an elegant place to barbecue, sunbathe, or have a relaxing meal. Keep in mind that the porous surface can absorb oil and grease. But the same surface also reduces glare, gives traction, absorbs water to help cool the air in hot weather, as well as providing a perfect setting for your favorite potted plants. □

INTELLIGENT WATERING

The basic requirement for successful gardening, presuming good drainage has been established, is intelligent watering. As the weather warms, the southern California coast endures morning and afternoon fogs which provide a natural humidity that must be duplicated in dry areas by artificial means.

For ordinary watering, basins around large shrubs and trees should be extended to the drip line of the plant. They should be 6 inches deep with sides sloping away from the trunk. Rule of thumb for summer watering: provide deep penetration that will cause the roots to go down for water, away from hot surface soil, while leaching the harmful salt beneath the root line. A stick can be shoved into the moist ground to see if the water gets down far enough. There are good meters that save waste by measuring the moisture content. If temperature is high, water more often, but plant roots need air too, so let them "breath" a bit in between. Shallow-rooted plants require more frequent watering, but they all differ greatly in their moisture requirements. For instance, chrysanthemums should never dry out, and figs should be watered until the time the fruit colors but tomatoes, once started, do better on the dry side.

The time of day for sprinkling is very important. In the fog belt all spray watering should be done in the early morning, to avoid evaporation in the sun and to be sure the leaves are dry by night, which helps prevent mildew. In dry areas it is best to water at night when the pressure is stronger and moisture is not lost to heat and wind in the air. A.M.

TROPIC WORLD, INC.
NURSERY and GARDENS



746-6108
DAILY 9-5

CACTI / SUCCULENTS
INDOOR PLANTS
LANDSCAPE PLANTS
FRUIT / NUT TREES
PROTEA / ROSES / BOOKS

Located 5 miles north of Escondido, next to I-15 (Mtn. Meadow Exit).

A Native San Diegan Reminisces

Lois K. Donahue

WITH THIS WINTER'S rains being so abundant, it seems a bit strange to write about drought-resistant plants. Unfortunately our rains will not carry us through the year, especially when we do not know what next winter's weather may bring. In the midst of the downpours we have had, we must remember that we are living in a semi-arid area and so we must prepare for the future by changing to low-water-use plants, if we want gardens. Those commonly grown fifty or sixty years ago when there was a scarcity of water are a good place to start.

One of the first things a newcomer to this area saw in those days was the common red geranium. It grew so willingly and with little or no care that it was not held in high esteem. Now, with judicious trimming and very little care it can be a real asset to any home.

Another hardy and rather neglected plant was the gaillardia. The favorite planting area for this plant was the parking strip because there was no necessity to pull the watering hose out there. I did not care much for it in those days, not appreciating the gray-green foliage and brown-red and bronzy petals with picoted edges that looked so good against the southern California soil.

Somewhere in the back yard we always had a clump of Mexican sage (*Salvia leucantha*) or perennial salvia as my mother called it. I still have a clump beyond the fence on the edge of the canyon. It is a woody plant that sends up shoots with reckless abandon, covering a large area against a fence that needs camouflaging. The gray-green leaves are attractive and the purple bracts that look and feel like velvet can make me feel like a girl again as I run my hands over them just as I did so many years ago. The little white flowers at the tip of each bract give a sparkling effect to the whole plant.

Another plant I remember from my young days was a shrub by the garage at the back of the lot. No attached garages in those days! This we called snowball or mock orange, because of the lovely fragrance. It is *Philadelphus coronarius* and I recommend choosing one for this area. I am not sure ours chose to be drought-resistant, but due to its location, it was. And in southern California soil, too. Another shrub we had was cotoneaster. Give this a little water and it immediately sends out branches that entrap you. One more shrub that I lived with as a young married was a Michaelmas daisy. During the summer it was covered with small light-blue daisy-like flowers—and bees. After the bloom was gone, it still was a nice looking plant.

So, the threat of reduced water usage need not deprive us of a flowering garden. And the idea of less yard work seems rather good too. □

Lois K. Donahue is a enthusiastic gardener, and writes newsletters for local branches of begonia and gesneriad societies.

McDANIEL'S MINIATURE ROSES



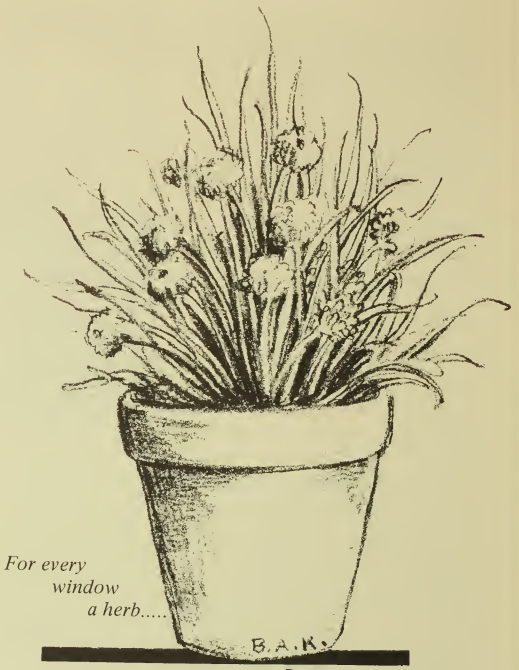
BUSH • TREE • CLIMBER • HANGING BASKET

HARDY AND EVERBLOOMING
SHIPPED ALL YEAR

7523 ZEMCO ST.
LEMON GROVE, CA 92045
Please Phone (619) 469-4669

HERBS IN POTS

Rosalie Garcia



Drawing by Beverly Kulot

NOW THAT HERBS are in style again and commercial sources for fresh ones are scarce, one must depend upon ingenuity, which includes experimenting, to be able to grow them. Even apartment and condominium dwellers do have balconies and big windows where there is partial sun for growing plants.

We are fortunate here in southern California in having a Mediterranian-type climite similiar to the Greek, Italian, Spanish, and Biblical lands where the wild plants of our principal herbs were domesticated from their semi-arid hill and valley habitats. The oils, essences, powders, and perfumes are better preserved now, perhaps, but they are essentially the same as those transported by the ancient camel caravans of the East.

The average gardener will find, to his dismay, that plants (and especially herbs) used to the wild free life do not like the restrictions of pots. A kind of panic evolves that makes the poor herb grower wonder what he should really do!

Herbs do not need as much rich soil and water as the shade plants usually grown in pots. Also, a sparce use of fertilizers is best for most of them.

The best thing to do is to fill a pot with good garden soil and plant seeds, especially if there is not a good source of small plants. (Carefully read the directions on the seed package. Some seeds, like the parsleys, need to be soaked before planting.) Pots should be chosen according to the root system of the plant.

Wide shallow pots are best for the creeping herbs such as oregano, marjoram, tarragon, thè mints, and the thymes. Pots suspended by wires with the foliage growing over the edges are very attractive but are harder to keep moist. The mints, especially, need moisture. Herbs can be pretty hanging plants, so give them a chance.

Deeper pots, to 6 or 8 inches, are best for herbs with tap roots, like the parsleys. It is best to plant parsley seeds.* Even after soaking the seeds for several days, they can take up to a month to 'come-up,' I have learned how to have a perpetual supply of Italian parsley, the plain, most flavorful kind. I let a few plants go to seed and the planting will take care of itself, helped along by the winter rains and summer irrigation. The coarse, curly kind used to line vegetable bins in our markets is the hardiest and easiest to grow. Even though it is often used as a garnish in restaurant, some people do not realize that it is good to eat. I once grew it in a 3-foot window box. It was pretty and always a source of something green for my salads and for my neighbor's canary.

Coriander, a kind of parsley, has a split personality. When it is young it is sold as cilantro or

Mexican parsley, but when it 'grows-up and goes-to-seed,' it is coriander. It can be grown in pots, but I have never found it easy.

The dainty, fine-cut leaved chervil, with the slightly anise flavor, is not so hardy but adapts to pot culture and care—and it is worth it.

For those who like the flavor of onions and garlic, pots will oblige with both all year. Chives and society garlic, both grown for their leaves, will grow in pots in a sunny kitchen window; shallow for chives and deep for the garlic. Both are more delicate in flavor than the bulb forms and can be everbearing. Both have a way of multiplying, so they should be divided and repotted at intervals. One can have tender green onions from onion sets for 6 to 8 months a year by planting sets about every three weeks. I suggest planting 8 or 10 sets in a good sized pot. You will have tender green onions in about a month. As you pull one set out, replace it with another set. Bulb garlics, and there are many varieties, can be grown in pots. I suggest a wooden keg or better a half-barrel, if you have room. Set it on bricks and fill with good soil. Holes drilled in or near the bottom assure good drainage. They should be watered deeply and left to drain and dry before watering again.

If one has space for barrels, they are best for the shrub herbs like rosemary, sages, winter savory, and the scented geraniums. All of these have pretty foliage, small blossoms, and very pleasant aromas.

The annuals like summer savory; the green, variegated and purple basils; and dill sometimes hold up two seasons in a mild winter.

A pot of succulent aloe vera is handy to have to put a slice on a burn to sooth and heal. It grows slowly in a pot, a poor adapter, so give it a large pot.

Some plants are used for both vegetables and seasoning. A favorite is the pepper, both hot and sweet. I find it best to have at least two plants and more are even better. The shrub peppers, which are nearly all hot and small, are decorative and once well rooted need little care but some moisture. To me, the most instant 'flash of fire' comes from the horseradish root, fresh and unadultered. (One can grow it in a 4 foot deep keg.) Some of the shrub peppers are hotter and the hot lasts longer.

For the sour lover there is the tender, sort of velvety sorrel that makes a pretty pot plant as well as adding flavor to a tossed salad.

Few people grow all these herbs, or would want to, but these and many more will grow in pots. Herbs do add a dimension to living which makes them worth the work. □

*Parsleys need soaking or scoring. A successful home gardener, a retired nurseryman, recommends rubbing parsley seeds between two pieces of fine sandpaper before planting them.

Rosalie Garcia, as a child, was learning to garden from her grandmother and gardening has been a part of her life ever since. She has written for *California Garden* magazine and lectured on herbs, rare fruits, and unusual vegetables for over 17 years.

(619) 448-0659
Open weekends 1 to 5 p.m.
Weekdays by Appointment

Hardy & Fouquette Orchids
WHERE YOU FIND THE UNUSUAL
Along With The Usual

Carlton Hills
9443 E. Heaney Circle
Santee, CA 92071

FREE!

TO ALL GARDEN, PLANT AND FLOWER LOVERS.

A descriptive brochure on the 10-volume New York Botanical Garden *Illustrated Encyclopedia of Horticulture* by Thomas Everett, called "the finest encyclopedia of horticulture ever produced in America."

($52.50 per volume)

Write to: VANCE ALLEN
GARLAND PUBLISHING
136 MADISON AVENUE, DEPT. C
NEW YORK, NY 10016



THUNBERGIA ALATA 'ORANGE GIANT'
GAY AND COLORFUL BRIGHT ORANGE BLOOMS COVER THE PLANT YEAR-ROUND.
Photo by Bill Gunther

CLOCKVINES

Steve Brigham

FOR YEAR-ROUND COLOR

IF ONE WERE to design a truly spectacular flowering vine with all year beauty for southern California, it would be difficult to top the "clockvines." In fact, these members of the Old World genus *Thunbergia* have long been recognized as being among the world's showiest vines, with their handsome foliage and brightly colored flowers over a long season.

Tropical in origin, the fast-growing clockvines are discouraged only by prolonged drought or freezing temperatures. They are successfully grown in coastal California from the San Francisco Bay Area south, and thrive in the San Diego area, where our warmer nights and coastal humidity helps them to flower all year long, as they do in their native lands.

The six clockvines described in this article fall into two distinct groups. The first three are all orange-flowered vines of small to medium size and are native to tropical and subtropical Africa. The second three from tropical India are larger vines with long clusters of flowers in red and yellow, white, or blue. Although clockvines will withstand temperatures down to 25° F., they all perform best when given a warm exposure.

AFRICAN CLOCKVINES WITH ORANGE FLOWERS

These shrubby, soft-stemmed twiners are conveniently moderate in size, and so are ideally suited for walls, fences, and banks. They have fuzzy triangular leaves, and solitary flowers produced in spectacular quantity at any time of the year.

• *Thunbergia alata* 'Orange Giant'

This is by far the best form of a species long known as the "Black-Eyed Susan Vine." Its compact nature makes it an excellent choice for a sunny wall, fence, or slope. Bright orange 2-inch flowers with dark centers cover the plant all year. It is grown as an annual in colder climates.

• *Thunbergia gibsonii*

This upright twiner (and the following, more prostrate plant) has bright orange flowers even larger than *T. alata*, but without the black centers. Although they have definitely distictive growth habits, some confusion exists as to their proper identification. *T. gibsonii* is an 8-to 10-foot climber with fuzzy gray-green leaves and is a good choice for walls or fences.

• *Thunbergia gregorii*

More clambering than climbing, this is a good



THUNBERGIA MYSORENSIS
THIS SPECTACULAR VINE WITH ITS RED AND YELLOW FLOWERS WILL ADD A DAZZLING ARRAY OF COLOR TO ANY GARDEN OR PATIO.
Photo by Bill Gunther

• *Thunbergia mysorensis*

One of the most spectacular vine displays in California is a fine specimen of this species planted on the wall of the restaurant building in the San Diego Zoo. Always in flower, *T. mysorensis* features long hanging chains of "yawning" red and yellow flowers that individually are quite unlike most other clockvines. Rather tender, this vine deserves a warm protected location for best flowering. Also, it is a "classic" for training on the walls and ceiling of a greenhouse.

• *Thunbergia laurifolia*

Long chains of sky blue 3- to 4-inch flowers with white throats are produced constantly by this species, but most heavily in winter and spring. Its dark green lanceolate leaves distinguish it from the related *T. grandiflora*, with which it is often confused. This is a striking blue-flowered vine that will withstand several degrees of frost with minimal damage.

• *Thunbergia grandiflora* 'Alba'

Very large ovate leaves and clusters of large white flowers distinguish this selection, which completes the red, white, and blue color scheme. Particularly effective when combined with the blue flowers of *T. laurifolia*, this vine is likewise a good candidate for an arbor. □

Steve Brigham is a specialist in flowering trees and shrubs at a nursery in Vista, California, featuring begonias, gesneriads, and other rare plants.

choice for a ground cover on slopes, although it will grow upright if given support. Foliage is a medium-green. Flowers that bloom reasonably well in shade as well as sun are slightly larger than *T. gibsonii*.

INDIAN CLOCKVINES WITH FLOWERS IN HANGING CLUSTERS

Quite different from the African species in form and flower, these robust woody twiners are aristocrats among flowering vines. The following selections feature long hanging clusters of bright flowers in red, white, and blue. Planted separately or combined on a sturdy fence or arbor, the effect is truly stunning, with their chains of bloom hanging down in wisteria-fashion at any time of the year. Their deep green foliage is handsome all year. This vine provides a decidedly tropical effect to any garden.

HILLTOP Nursery
Open 7 days
8:00-5:00
436-0928
Select from hundreds of exotic palms, scheffleras, dracaenas, cycads and more
Thousands of Hanging baskets and flowering plants to add beauty & color to your yard & patio
691 Sparta Drive • Leucadia, CA 92024
VISA
I-5 to La Costa Ave.
East to Frontage Rd.
South 3 blocks to Sparta
master charge

Victorian Gardens Reading List

Carol Greentree



Drawing by Susan Simmen

A SURGE OF public fancy for the preservation and restoration of Victorian architecture has brought an accompanying swell of information about the gardens of the period. Those who cherish the romance of late nineteenth century houses—especially those who are lucky enough to live in them—will most certainly enjoy the nostalgia evoked by the following books, pamphlets, and periodicals. Some of these are brand new, written for today's gardener. Others are tastefully designed paperback reprints of the very books your great grandparents may have read. They are filled with authentic information—and surprises. Many of the environmentally sound ideas they propound seem to have been lost. . .and rediscovered by contemporary gardeners.

Victorian Gardens—the Art of Beautifying the Suburban Home Grounds by Frank Scott is a 1977 paperback reprint of a garden guidebook of 1870. It is dedicated to Andrew Jackson Downing and advances the esthetic theories of America's first important landscape designer. Full of engravings, plans and diagrams, it is published by the American Life Foundation, P.O. Box 349, Watkins Glenn, NY 14891, and costs about $7.00. Write to the Foundation for their attractive catalog with appealing graphics.

American Woman's Home by Catharine and Harriet Beecher Stowe is a 1975 paperback reprint of the original 1869 volume. Three brief chapters treat the role of Victorian gentlewomen in horticultural pursuits appropriate to the era. Published by the Stowe-Day Foundation of Hartford, CT, this book, too, is available from the American Life Foundation. It costs about $7.00.

Victorian Landscape Gardening by Jacob Weidenmann is a large-format 1978 paperback reprint of an 1870 plan book. The text is illustrated with actual plot plans, tinted in pastel shades, and contains landscape design theory, gardening how-to instructions and plant lists. It is available at about $9.00, also from the American Life Foundation.

Historic Landscapes and Gardens by John Stewart is a small, exceedingly useful leaflet from the American Association for State and Local History. It is listed as leaflet 80. It costs only a dollar, but

contains thorough guidelines about how to authenticate and restore a garden of any period. Write to the A.A.S.L.H. at 1400 Eighth Ave. South, Nashville, TN 37203, for their catalog of history-related publications.

Landscapes and Gardens for Historical Buildings by Rudy and Joy Favretti is also published by A.A.S.L.H. This comprehensive 1978 paperback contains vaulable information about landscape maintenance for older gardens, as well as thoughts on how to research your own period garden. It is filled with photos, diagrams, plans, and plant lists, and costs about $6.00.

Victorian Gardens–How to Plan, Plant and Enjoy Them by John Highstone is a brand new (1982) paperback published by Harper and Row, at about $10.00. It can be ordered from Capability's Books for Gardeners, Box 114, Hwy. 46, Deer Park, WI 54007. It, too, contains plans and plant lists.

The Heirloom Vegetable Garden is about food gardening in the nineteenth century and is published by the Cornell Cooperative Extension as Information Bulletin 177, 4-H Leaders' Guide L-10-13. You can order it for $3.00 from Distribution Center, 7 Research Park, Cornell University, Ithaca, NY 14850. Beautifully designed and well researched, it contains plant descriptions of still-available vegetables, a list of seed sources and even recipes. It could become an heirloom in its own right.

A Nineteenth Century Garden by Charles Van Ravensway is an art book, charmingly illustrated with tinted plates from itinerant nursery sales agents' books. Its emphasis is on the old plants themselves, but it contains a short chapter on garden design principles of the last century. Published by the Main Street Press, Universe Books, in 1977, it costs about $6.00.

Glasshouses and Wintergardens of the Nineteenth Century by Stefan Koppelkamm strikes a somewhat esoteric note. A glossy-paged hardback published by Rizzoli International Publications in 1981, at about $30.00, it documents the artful Victorian use of technology to create elegant special environments for unusual exotic plants.

Victorian Homes is a rather new magazine devoted to all aspects of the era. Published quarterly, it contains a garden-related feature in every issue. Single issues are $3.50; yearly subscriptions are $12.00. Write to the magazine at P.O. Box 61, Millers Falls, MA 01349, for information.

The Old House Journal is published ten times a year, for $16.00. Individual copies are $2.00 each. *O.H.J.* has often highlighted Victorian gardens since its inception nearly ten years ago. Write to the journal at 69A Seventh Ave., Brooklyn, NY 11217, for information about back issues and how to obtain them.

Roses of Yesterday and Today is a fat little catalog of nothing but roses. Illustrated with sweet drawings and photos, it lists many hard-to-find vintage varieties, with dates of introduction, if known. This catalog is delightful, instructive and costs only a dollar. Write to Roses. . ., Brown's Valley Rd., Watsonville, CA 95076.

Comstock, Ferre & Co. specializes in old seed varieties no longer found in modern listings. Write to this venerable firm (since 1820) at 263 Main Street, Wethersfield, CT 06109, for their current catalog.

An important note: Not one of these readings cites the plants that were unique to California in the nineteenth century. The Victorian era coincided with an ebullient period of world exploration, scientific investigation and horticultural importation. Southern Californians thrilled to discover "new" plants that could be grown in their subtropical clime. Many of today's striking skyline trees–araucarias, cedars, eucalyptus, and palms–were brought here well before the turn of the century. The introduction of nuts, fruits, and grapes quite literally changed the face of the golden state and altered the American economy as well.

Because those plants are seldom grown elsewhere, and rarely appear on Victorian plant lists, you may want to do some horticultural sleuthing of your own. To help you in your research adventures, I recommend a fine reprint of an old "mug" book: *History of San Bernardino* by Wallace W. Scott. (San Diego was once part of the giant county of San Bernardino, as was Riverside.) Published by the Riverside Museum Press, Riverside, CA, in 1965, this oversized volume is a faithful facsimile of the original 1883 edition. It contains many clear lithographs of street trees, yard plantings and references to plants used in this area. The book costs about $18.00, and is available at the San Diego Historical Society bookstore in the Serra Museum. . .or you can consult it at your favorite library. Happy Historic gardening! □

Carol Greentree, a freelance garden writer, has a special interest in horticulture history and has done research on the Victorian landscape styles in California.

AFRICAN LINDEN TREE

Marjorie Halterman



Drawing by Marjorie Halterman

ONE OF THE most pleasing and rewarding trees in my garden is the evergreen African linden, *Sparmannia africana*, named after a Swedish naturalist, Andreas Sparmann. Sparmannia is attractive and showy, even after its midwinter flowering period. These trees can be multitrunked at the base, especially if pruned back to control growth. The broad, angled, heavily veined light green leaves are dense and coarse. They are heart shaped, about 10 to 12 inches long, with 5 to 7 lobes and toothed margins. Both the upper and lower surface of each leaf is covered with erect, soft silky hairs. A tiny new developing leaf possesses this heavy velvety nap, causing it to feel like the softest of powder puffs.

My introduction to the African linden was in a nursery where I first saw a plant in a gallon-sized container. It had a number of flowering clusters, equal in length, spread from a common center, growing in true umbellate fashion. I was immediately attracted to the foliage and the graceful cluster of emerging buds.

Taking pen in hand, after I brought the plant home, I wished to transfer this lovely image onto paper. In so doing, I discovered its unique flowering characteristics. The graceful buds were covered in nap and in a prostrate 6 o'clock position. Soon the buds opened into radiant flowers. The four white sepals and four white petals sheltered a mass of maroon-colored stamens, terminating with a dazzling show of yellow pollen. The numerous stamens spread from the center. The flowers were now reaching out from the stalk, at a 9 or 3 o'clock placement. By the third or fourth day the closed, spent petals were upright, standing in a vertical high noon position, still making a strong statement on their own!

The African linden can be grown outdoors in frost-free locations or as a lath or greenhouse plant. Cuttings are easily propagated. A cutting taken from the tip of the young shoot in spring will flower the following winter. The tree needs plenty of light and air at all times. They grow fast. My plant was added to the garden about 9 months ago and is now 7 feet tall. It will grow to 20 feet or it can be kept as a multitrunked shrub.

The sparmannias furnishes mass and bulk to the landscape; it is ideal for screening, and combines well with tropical plants. Many of them can be seen growing in Golden Gate Park, San Francisco, California; there is a mature specimen in Quail Botanical Gardens in Encinitas, California, and in the San Diego Zoological Gardens near the bus loading station and exit turnstiles. □

Marjorie Halterman, a gardener and school teacher, has been sketching plants at Quail Botanical Gardens for their identification files.

OXALIS MEGALORRHIZA

Text and Photos by Bill Gunther



DURING THE SPRINGTIME THIS OXALIS HANGS OVER THE ROCKWORK WITH NUMEROUS BLOSSOMS AND MUCH FOLIAGE, YET PARTS OF THE THICK FLESHY STEMS REMAIN VISIBLE.

JUST SAY THE word oxalis to any California gardener, and quite likely you will observe a reaction of disgust. That is because most California gardeners tend to equate all the species in the genus *Oxalis* with those few which are weedy pests in most of our gardens.

Too bad, because among the some 850 different species of oxalis there are several which, for some special garden uses perform better than any other plant in the climate of coastal southern California. Even so, these species are rare in cultivation simply because of the genus to which they belong.

For example, consider *Oxalis megalorrhiza*, which is native to South America and the Galapagoes Islands. With succulent fleshy pendant stems, glossy dark green clover-like leaves, and attractively veined brilliant yellow flowers, this species is beautiful in all its parts. It thrives in the climate of coastal southern California, but even in this very favorable environment, it never becomes rampant or invasive. From the



A CLOSE-UP VIEW OF THE BLOSSOMS OF *OXALIS MEGALORRHIZA* SHOWS OFF THE VERY ATTRACTIVE FORM OF THIS FLOWER. THE CENTERS AND THE VEINING ARE A GREENISH BROWN; THE REMAINDER OF THE BLOSSOM IS A BRILLIANT YELLOW.



IN THE FALL MOST OF THE FOLIAGE FALLS OFF AND THE FLESHY SUCCULENT STEMS ARE THE MOST PROMINENT FEATURE OF THE PLANT. NOTE THAT NEAR EACH GROWING POINT TUFTS OF LEAVES AND EVEN A FEW FLOSSOMS PERSIST.

CLASSES
IN
EUROPEAN
FLORAL
DESIGN

(619) 222-6246

These courses are being lead by
Dutch designer Rene J. van Rems

BLOOMEN
INTERNATIONAL

viewpoint of landscape design the combination of all these characteristics makes this species an ideal plant to drape over a retaining wall, here and there, to enhance and soften the harsh appearance of the wall.

The attributes of *O. megalorrhiza* make it a far better selection for use as a wall drape than the assorted ivies and ice plants which commonly are selected for that purpose and which soon thereafter completely smother the wall and all the adjacent area.

If you are prejudiced against oxalis, grow a plant of *O. megalorrhiza* and all your prejudices will quickly disappear. This species you will love. Grow it from seed or cuttings in full sun or part shade, in almost any soil. It is tough! If it is not available in your favorite nursery, send a self-addressed stamped envelope to *California Garden* Magazine, Casa del Prado, Balboa Park, San Diego, CA 92101. You will receive a name and address of a local retail source by return mail. □

LETTER TO THE EDITOR

Dear Sirs:

Please send your magazine to my brother and his wife to the San Diego address enclosed.

I am state Horticulture Chairman for the Federated Garden Clubs of Maryland, Inc. and I enjoy all your articles on the care of plants. We grow 385 camellias under glass and we feel your articles on these plants are very helpful. The section "Now is the Time" applies to greenhouse growing also.

Best wishes,

/s/ Zenobia M. Kendig

LOOK FOR THESE TESTED PRODUCTS

IDEAL FOR SAN DIEGO COUNTY CONDITIONS

A DISTINCTIVE PRODUCT . . .

MILORGANITE



MILORGANITE -- 100% true organic (no synthetic elements), slow - release, non-burning fertilizer for trees, shrubs, turfgrasses, ground covers and flowers. Easy to use, stores well.

FERTI-PILLS

The safe, long lasting fertilizer tablets used by professional growers, contractors, landscape architects and nurserymen

The Ferti-Pill #1 -	for 1 gallon size plants up to tree size
The Ferti-Pill #2 -	for ground cover and bedding plants
The Ferti-Pill #6 -	for container and house plants.

Unlike Jobes or other tree spikes, these pills contain safe non-burning nutrients and can be used on our San Diego shallow soils.

LOAMEX

THE ULTIMATE IN SOIL AMENDMENTS

LOAMEX is a long lasting blend of organic and inorganic materials.

- MADE from finely ground fir bark, redwood sawdust, diatomaceous earth, iron and nitrogen.
- WILL outlast all other amendments.

LOAMEX contains humus, humic acids and soil bacteria to help break up heavy soils.

DO NOT BE MISLEAD by amendments that are represented as a cure-all. You need 10% -40% organic amendments to change the soil texture.

GOLD CUP . . . the newest development in a complete

POTTING SOIL

- MADE IN SAN DIEGO FOR OUR CONDITIONS.
- IDEAL FOR CONTAINER GROWING OF FLOWERS, VEGETABLES AND HOUSE PLANTS



Ask for GOLD CUP . . . and see the difference!

ALL AVAILABLE AT YOUR FAVORITE NURSERY!



50 YEARS AGO...

Carol Greentree

"HOW PLANTS GET THEIR NAMES" by L. H. Bailey (A Review) (The MacMillan Co. 1933; $2.25)

The subject of nomenclature is for most people a dry one at best. But Dr. Bailey finds it still "fresh and compelling," and his little book should help to make it so for others. He is at pains to explain the whys and wherefores of [the rules of naming] in easy English. . .Not the least feature of this book is a list of common generic and specific names with indication of their preferred pronuciation. This will constitute a real boon for many of us.
(Author's note: This small volume has proved to be an enduring addition to the literature of horticulture. It is available still, as a paperback reprint (Dover Publishers) of the original, and is much loved by students and garden neophytes. Its opening essay is amusing, enlightening and timeless. The book is available at many bookstores for about $3.00.)

August, 1933
A WALLED GARDEN by Ada Perry

One of the most beautiful of the city's walled gardens was "host" to the Floral Association in July. This garden, belonging to Mr. and Mrs. Julius Waggenheim, opened its gates to garden enthusiasts of the association who wandered into the lovely enclosure at Third and Juniper.* The inviting garden is hung with *Bignonia cherere* and *Philadelphus* (syringia). It tempts the interest whenever it is passed, and many persons welcomed the opportunity to enter its walls. Its interior is well worth a visit.

It is strictly a family garden. . .everyone felt at home at once. Architecturally, it was awarded a coveted prize this year, so it is a worthy effort in gardening, as well as a delightful spot in San Diego.

Three terraces divide the garden expanse; by means of artistic building, they are transformed into a delightful vista from the veranda. Trees, identified by Chauncey I. Jerabek, include *Podocarpus macrophyllus* and *P. elongatus, Metrosideros robusta* and *Maytenus boaria*, as well as eugenias, pittosporum, a double-flowered peach, casuarinas and a flowering eucalyptus.

The use of water in this garden is an example to all southern Californians. A wall fountain inside the east wall is the source of a little stream which flows down a little runway in the walk to a long pool on the second level. This pool is planted to lilies—but not too many of them. Located in the third level is a shallow birdbath with room for a dozen mockers, warblers and ground robins.

Mrs. Waggenheim was assisted in receiving by her sister, Alice Klauber. Punch and cookies were served.

---

*Sadly, remnants of both house and garden were demolished to make room for a parking lot!

Garden Writers, photographers, illustrators, lecturers, editors...all persons active in Garden Communication

WESTERN GARDEN WRITERS SYMPOSIUM

will be held in San Diego...August 12-15, 1983
slide lectures, behind-the-scenes tours of the San Diego Zoo, Balboa Park, Sea World, Wild Animal Park, Quail Botanical Gardens, specialty nurseries...and more!!!

SD in '83!

an educational service held in cooperation with the Garden Writers Association

for information, write: W.G.W.S.
405 W. Washington, Suite 8
San Diego, CA 92103

ernest b. chew
horticulture consultant
one nine six five sheridan avenue
san diego, california 92103
telephone (619) 298-0192

Antonelli Brothers
TUBEROUS BEGONIAS
2545 Capitola Road
Santa Cruz, California 95062
36-page Color Catalog 25 cents

G.S.JOHNSON ROSE NURSERY
Rose Specialists
BUSHES • CLIMBERS • TREE ROSES
BARE ROOTS IN SEASON
IN CANS – AVAILABLE ALL YEAR
SPRAY MATERIALS FERTILIZERS
36 YEARS IN SAME LOCATION
8606 Graves Ave., Santee, CA 92071 Phone: 448-6972
(Corner Graves & Prospect) (Off Highway 67)
Open 8:00 a.m. to 5:30 p.m. Closed Wednesdays

DRIP IRRIGATION
SALES
• Save Water, Time, and Money!
• Largest Selection of Drip Irrigation Equipment in East San Diego County.
• Installation Assistance.
• Design Services.
Call or Write for Futher Information
TRICKLE SOAK SYSTEMS
8733 Magnolia, Ste.109 Santee, CA 92071
449-6408



DOUBLE-CENTERED ROSE 'MON CHERI'
Photo by Lee F. Reese

A ROSE ODDITY

A double-centered rose rarely occurs in a rose garden. A rosarian of long standing has seen this oddity only a few times in his own garden. It is not known why this only happens to one rose on a bush and rarely occurs again.

Another even rarer occurrence is two blooms forming from the same calyx. The second bloom is usually colorless and small, but interesting. A.M.

ARTISTIC PRUNING
Landscape Design & Execution
JIM STELLUTI
292-5972

GARDENING WITH WORMS

JOHN E. MILLER

Charles Darwin once wrote, "Man owes his entire living to a superficial layer of topsoil laid down by the earthworms."

There are about five thousand varieties of the earthworm—soft bodied, egg laying, earth burrowing creatures. A native worm *Lumbricus terristris*, called angle-worm, night crawler, and rain worm, is valuable for fish bait but should not be overlooked in gardening. It can bore down 18 to 20 feet and has been frequently found at depths of 6 and 8 feet. The value of this large worm is readily apparent. It has a proboscis or nose similar to an elephant. It can bore right through hard-pan. This worm should do a magnificent job of soil aeration and dredging minerals from deep in the ground as well as enriching the soil.

For general work in the garden the red worm cannot be beat. It is called red gold hybrid, red wriggler, or Egyptian red gold hybrid—all the same *Helodrilus foetidus*. These worms aerate the soil, improve the texture and build plant food from what they eat. A 1- to 3-pound coffee can makes an efficient unit that can accommodate up to five hundred breeders for up to one month and keep one hundred happy for several months. (Make this mix 9 days before you plan to use it: ¼ sand, ¼ fertilizer, ¼ peat moss, ¼ loam—mix, sprinkle thoroughly and turn every three days.)

The secret of success in impregnating the soil with any kind of earthworm is that it be done only in the evening. Watch for birds during the few minutes it takes for the worms to drill down. □

Mr. Miller grows worms at his home which he calls "Wormy Acres." He is a past president of the Organic Gardening Club in San Diego, California.

DID YOU KNOW?

Botanically speaking, the strawberry is neither a berry nor a fruit. Rather, it is the greatly enlarged stem end of its small white blossom in which the true fruit—the seeds of the plant—are embedded.

The strawberry is a member of the rose family, which includes more than 2000 species such as the raspberry, apple, cherry, pear, plums, and naturally enough, roses.

California
GARDEN
MAGAZINE Since 1909

*California's oldest garden magazine
*Flower, fruit and vegetable talk for the neighborhood gardner
*Authoritative information for the serious student of horticulture

The perfect gift to a friend, relative or neighbor!

1 YEAR SUBSCRIPTION $4.00
2 YEAR SUBSCRIPTION $7.50

(Please PRINT)
Name: _____

Address: _____

City: _____ State: ____ Zip: _____ Phone: _____

San Diego Floral Association
Casa del Prado, Balboa Park
San Diego, CA 92101

San Diego
Floral Association
invites you to join us

MEETINGS • WORKSHOPS
LIBRARY • INFORMATION SERVICE

Membership Rates:
(Magazine included)

INDIVIDUAL..... $ 7.50 ☐
FAMILY..... 8.50 ☐
SUSTAINING..... 10.00 ☐
CONTRIBUTING..... 25.00 ☐

(Please PRINT)
Name: _____

Address: _____

City: _____ State: ____ Zip: _____ Phone: _____

PACIFIC TREE FARMS

GRAFTING & PLANTING SERVICE

Closed Tuesdays

FRUIT • NUTS • BERRIES

For Mild Climates

- Stanefruit Trees - Many on Zaiger semi-dwarf root stock
- Apples - Anno, Dorsett Golden, Gordon, Gronny Smith, Mutsu, Ein Shemer
- Citrus - 65 varieties • Florida Blueberries
- Kiwi Fruit Vines - low & high chill
- Persimmons - 6 varieties
- Macadamia, Walnut, Almand, Chestnut, Pecan
- Manga, Sapate, Banana, Litchi, Cherimaya, Papaya
- DECOLLATE SNAILS

4301 Lynnwood Dr., Chula Vista 92010
(619) 422-2400

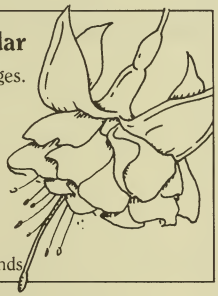
1984 Fuchsia Calendar

Handsome, full color, 16 pages.

$4.95

National Fuchsia Society
Alfred North
382 Court Ave.
Ventura, CA 93003

Check or money order, U.S. funds



Walter Andersen Nursery

Since 1928

Nursery Stock and Garden Supplies for Beautiful Gardens

We Specialize in Indoor Plants



Free
GARDEN CLASSES
9:a.m. Thurs. & Sat.

3642 Enterprise
San Diego, CA 92110
224-8271

HOW TO PRONOUNCE GENERIC NAMES

The generic name, or genus, serves a plant as the surname serves a person.

Following is a list of names appearing in recent issues of California Garden magazine:

Alyogyne – *alyò-gyne*
Arctotis – *ark-toh-tiss*
Brachycome – *bak-ip-poh-dee-um*
Bulbophyllum – *bulb-oh-fill-um*
Calanthe – *kal-lanth-ee*
Coelogyne – *see-loj-in-ee*
Cotoneaster – *kot-toh-nee-ass-ter*
Cyperus – *sye-peer-us*
Dendrobium – *den-droh-bee-um*
Dietes – *diè-tes*
Eremophila – *eremó-phila*
Grevillea – *grev-vill-ee-uh*
Jasminum – *jass-min-um*
Juniperus – *joo-nip-er-us*
Osteospermum – *osteo-spérmum*
Prostanthera – *pross-tanth-er-uh*
Puya – *pù-ya*
Rosmarinus – *ross-muh-rye-nus*
Scaevola – *scae-vòla*
Sparmannia – *spármann-ia*
Solanum – *sol-lay-num*
Thunbergia – *thun-berj-ee-uh*
Venidium – *ven-nid-ee-um*

Wholesale
Retail

10:00 a.m. – 5:30 p.m.
(Closed Monday)

Rose World Originals

1656 N. Second Street
El Cajon, CA 92021
(619) 447-8498

MINIATURE ROSES

Mary E. Hardgrove *Donald L. Hardgrove*



NOW IS THE TIME

compiled by PENNY BUNKER

A CULTURAL CALENDAR OF CARE FROM OUR AFFILIATES

BEGONIAS MARGARET LEE

Now is the time–

to groom and inspect plants regularly at this growing time.
to take cuttings when trimming or pruning.
to pot rooted cuttings and leaves.
to repot to next size container if needed.
to feed tuberous begonias with "Hi-Bloom" and fish emulsion.
to check for pests–snails, slugs, and fungus.

BONSAI DR. HERBERT MARKOWITZ

Now is the time–

to water, water, water–some bonsai require watering two or three times a day if the weather is hot and dry.
to defoliate deciduous trees if you plan to do so (no later than July); to reduce the size of leaves.
to rotate trees with regard to sun exposure.
to stop repotting and transplanting except in emergency situations.
to check for pests and insects; spray with a diluted solution.
to air-layer trees if you have good specimens.

BROMELIADS JOYCE BREHM

Now is the time–

to continue fertilization program with ½ strength liquid once a week.
to continue removing pups (offshoots) that are one-third the size of the mother plant. Replant in clean soil.
to label all pups.
to protect tender plants from sun. Shade cloth or newspaper laid over them during the day will help if they cannot be moved.
to mist frequently to maintain humidity when the hot dry winds blow.
to water whenever the top soil is dry.
to keep cups clean and filled with water.
to maintain war on snails and bugs. Inspect plants and take appropriate action.
to enjoy the colors and wonderful bloom.

CACTI & SUCCULENTS VERNA PASEK

Now is the time–

to water–soaking the soil evenly is better for potted plants as well as those in the ground.
to plan windbreaks to help conserve water and protect new growth from wind and sunburn.
to make grafts as union will take place better in warm weather.
to feed with a balanced fertilizer for new growth and beautiful blooms.
to protect against snails and slugs–try stale beer in jar lids placed in the garden.
to repot any pot-bound plants.
to root cuttings and offsets.

CAMELLIAS LES BASKERVILLE

Now is the time–

to establish regular watering program as hot weather begins. Never let root zone completely dry out–keep damp but not wet.
to mulch with an inch-thick application of redwood compost.
to feed with liquid fish, cottonseed meal, or other camellia fertilizer; regular feedings at 6 to 8 week intervals.
to stake the long new growth.
to inspect for aphids or loopers: spray with malathion.
to give plants iron three times a year.
to continue light pruning of unwanted branches.

DAHLIAS ABE JANZEN

Now is the time–

to spray for insects and mildew. Keep snails and slugs away.
to disbud plants to encourage better bloom.
to keep old blooms cut back to the first set of leaves from the main stalk to prolong blooming.
to tie up side branches to prevent breaking.
to continue regular watering and spraying.
to feed with a 5-10-10 fertilizer to promote bloom and root growth.

EPIPHYLLUMS FRANK GRANATOWSKI

Now is the time–

to remove spent blooms ½ inch above the stem, and unwanted apples, in order to conserve the plants vitality.

to fertilize plants that have completed their blooming cycle with fish emulsion, slow release nitrogen fertilizer, or any good balanced fertilizer. **Do not overfeed.**

to transplant to larger containers, plants that have outgrown their present containers, i. e.: transplant 4-inch pots to gallon pots, and gallon pots to two gallon containers. If you have the space, it is advisable to utilize hanging baskets rather than supporting pendulous growth with a trellis.

to plant new cuttings during the warm weather, to allow new growth to become established during the growing season.

to remember to water hybrids during the hot summer months, and that an occasional spraying or misting is very beneficial. **Do not** allow soil to completely dry out.

to maintain plants in their proper environment– in a lath house, under shade cloth, or suspended from the branches of a tree. Avoid direct exposure to the hot summer sun.

FERNS RAY SODOMKA

Now is the time–

to maintain humidity about the plants by dampening surrounding areas.

to maintain a good watering program.

to fertilize plants regularly as they are in growing period.

to keep dead fronds trimmed off.

to maintain regular pest control: spray for aphids, check for scale, snails, and spider mite. Use cygon as a drench for the mites.

to protect from hot sun.

to plant fern spore.

FUCHSIAS WILLIAM SELBY

Now is the time–

to prune lightly after blooming to shape and encourage more blooms for fall.

to keep leaves blossoms and other trash cleaned up to prevent fungus and disease.

to keep the foliage misted; spray only in the shade or early evenings as moisture on the plants can result in burn spots.

to keep plants damp but not wet. Do not overwater.

to fertilize regularly with high-phosphorous for buds and blooms.

to control insects; plants may be sprayed or drenched with cygon or systemic control. Orthene will control most species such as aphids, leafhoppers, caterpillars, and leaf miners. It is effective, also, against thrips, scale, whitefly, mites, and mealybugs. Do not use with systemic.

GERANIUMS CAROL ROLLER

Now is the time–

to water thoroughly when plants become somewhat dry. Allow excess water to drain away. Keep foliage as dry as possible.

to continue feeding with a balanced fertilizer dissolved in water, using at half strength as often as needed to keep plants growing well.

to continue a disease and pest control program, using all products according to the manufacturer's directions.

to keep plants groomed by removing old discolored leaves and faded flowers. Some types, such as regals, have long bloom stalks which should be cut away with a sharp blade.

to protect tender plants from the sun if temperatures are high.

to take cuttings, if desired. Each cutting should have a healthy growing tip.

to continue to rotate plants on a regular basis in order to produce well-shaped plants.

GESNERIADS MIKE LUDWIG

Now is the time–

to protect plants from the sun. Try to keep temperatures below 90° F. in the growing area. This will keep plants happy and give you a place to retreat.

to keep plants blooming by removing dead flowers.

to water regularly; do not allow to dry out– achimenes will go dormant if this happens.

to take proper action against pests.

to enjoy your plants and don't keep so many that their care becomes a chore.

HEMEROCALLIS SOUTHWEST HEMEROCALLIS SOCIETY

Now is the time–

- to keep dead leaves cleaned out of beds and individual plants to discourage pests.
- to irrigate regularly. During hot weather, it is best to water early in the morning or late evening.
- to fertilize to promote rebloom. At this time of year, organic fertilizers such as cottonseed meal or fish seem especially effective to combat alkali and salt buildup in the soil (most common in heavy soil). If plants show leaf burn or chlorosis, an effective quick-acting control is liquid lime-sulphur.
- to order new cultivars for fall delivery.

IRISES SAN DIEGO–IMPERIAL COUNTIES IRIS SOCIETY

Now is the time–

- to spade and work humus into the soil to revitalize before replanting rhizomes.
- to feed those plants left in the ground with a good fertilizer to produce strong growth.
- to divide and replant tall-bearded iris, taking only the new rhizomes attached to the outer edges of the "mother" clumps. Trim fans to half length before planting.
- to keep iris beds clean and free of old fans and weeds.
- to watch for aphids; use a light insecticide or a systemic.
- to cut spuria foliage, but do not dig until September.

ORCHIDS CHARLES FOUQUETTE

Now is the time–

- to continue watering cymbidiums heavily.
- to feed a high-nitrogen fertilizer to cymbidiums, cattleyas, and nobile dendrobiums.
- to spray and mist on hot dry days. Do not be fooled by low clouds; plants still need misting.
- to keep paphs moist; repot after bloom.
- to repot seedling phals and make cattleya divisions.
- to plant dendrobium off-shoots when roots are 2 inches long; tag with plant name.
- to watch for red spider or scale. Set out snail bait–use metaldehyde bait, malathion, Orthene.
- to check heat and light intensity in glasshouse.
- to avoid sudden temperature changes where plants are in spike.
- to keep outdoor or shade house planting medium moist.

ROSES BRIAN DONN

Now is the time–

- to continue watering regularly, especially in hot dry spells. Roses also seem to benefit from a gentle hosing to wash off accumulations of dust and spray residue. Do this early in the day so the foliage is dry before night.
- to continue feeding a well-balanced plant food every 3 to 4 weeks.
- to treat plants that have pale leaves with dark veins (chlorosis) with chelated iron.
- to mulch with steer manure to conserve water and have a balancing effect on the feeding program.
- to watch for rust and eradicate it; remove infected foliage and spray with "Acti-Dion PM."
- to do moderate pruning in late August for abundant fall bloom.

VEGETABLES GEORGE JAMES

Now is the time–

- to prepare for fall planting by digging soil and mixing organic soil amendments.
- to set plants of celery, eggplant, peppers, and tomatoes.
- to plant seeds of snap beans, summer squash, corn, cucumber, carrot, beets, radish, turnip, and lettuce.
- to harvest vegetables frequently while they are young and the quality is the best. They are soon past this stage during warm months.
- to irrigate deeply by furrow, flooding, or drip method.
- to remove weeds while they are small and before they become competitive with the vegetables.

GREEN THUMB

Now is the time–

- to remove tops from narcissi after all foliage has died.
- to plant and divide Shaste daisies.
- to plant flowers for fall color: calendulas, stock, cornflowers, snapdragons, zinnias.

to pinch back chrysanthemums in late July for lusty plants and more flowers.
to prepare trench with manure and fertilizer several weeks before planting sweet peas in August and September.
to prepare ground in preparation for fall seeding of all crops, vegetables as well as flowers, bulbs, shrubs.
to watch for and control pests and diseases: mildew, spider mites, whiteflies. Blast with water or use a chemical spray.

KARTUZ GREENHOUSES



Passiflora 'Coral Glow' ®

1408 SUNSET DRIVE
VISTA, CALIF. 92083
Phone: (619) 941-3613

Rare flowering plants for the home and garden, featuring the world's largest selection of begonias and gesneriads. Come visit us, or send $1.00 for our 1983 mail-order catalog.

Open Thursdays through Sundays from 9:00 AM to 5:00 PM; other days by appointment.



Reviewed by RUSSELL P. MacFALL

Flora of the Mount Hamilton Range of California, by Helen K. Sharsmith. Special Publication No. 6, California Native Plant Society, 2380 Ellsworth St., Suite D, Berkeley, CA 92704, 1982, 100 pages, $5.00 (plus $1.25 postage).

This is a republication of the doctoral dissertation of the author, awarded the degree in 1940 by the University of California where she was on the staff of the university herbarium. It is a detailed study of a little spoiled area in the Diablo Range just east of San Jose, with close attention to the geological, climatic, and faunal features of the steep slopes as they influenced the distribution of plant life. Beyond its particular research value, it has the lasting merit of being a textbook example of what such a study should be. □

Begonia Portraits

By Alice M. Clark

Featuring:

41 water colors
25 line drawings
San Diego horticulturists
Southern California begonia growers

Limited Edition



Hard Cover, 7½x11

Costs

$25.00, plus $1.25 For handling and insurance
Residents living in California add $1.50 sales tax

Send orders with checks to

San Diego Floral Association
Casa del Prado, Balboa Park
San Diego, CA 92101

NOTICE

Climbers & Wall Plants by Peter Q. Rose. Blandford Press, Poole, Dorset, England, 1982, 168 pages, $17.95.

This book, reviewed in the May–June 1983 issue of *California Garden* magazine, is available in the United States from Sterling Publishing Company, Inc., Two Park Avenue, New York, NY 10016.

SAN DIEGO'S LARGEST NURSERY FACILITY

. . . with complete, personalized attention to your every garden need.

Presidio Nursery and Florist

LINDA VISTA RD. at MORENA BLVD.
PHONE 297-4216

(Continued from page 100)

OTHER GARDEN CLUBS

BONITA VALLEY GARDEN CLUB
Pres: Mrs. Shirley Madden (421-9979)
1444 A Eagle Peak Ct, Chula Vista 92010

BRIDGE & BAY GARDEN CLUB
Pres: Mrs. Keith Boyer (435-9068)
910 - 7th St, Coronado 92118

CALIFORNIA RARE FRUIT GROWERS, NORTH COUNTY
Pres: Mr. Claude Sweet (286-1534)
7488 Comet View Ct, San Diego 92120

CALIFORNIA RARE FRUIT GROWERS, SAN DIEGO CHAPTER
Pres: Mr. Phil Clark (427-7211)
36 "K" St, Chula Vista 92011

CHULA VISTA ROSE SOCIETY
Pres: Mrs. Betty Birmingham (475-3985)
5704 Sweetwater Rd, Bonita 92002

CITY BEAUTIFUL,SAN DIEGO CHAPTER
Pres: Mrs. Raymond E. Smith (488-0830)
4995 Fanuel St, San Diego 92109

CORONADO FLORAL ASSOCIATION
Pres: RADM A. S. Goodfellow (435-7328)
409 First St, Coronado 92118

COUNTY CIVIC CENTER GARDEN CLUB
Dir: Mr. James Saraceno (274-2628)
3366 Lloyd St, San Diego 92117

DOS VALLES GARDEN CLUB
Pres: Mrs. Alvin Putman (749-9587)
15665 Fruitvale Rd, Valley Center 92082

EAST COUNTY ROSE SOCIETY
Pres: Mr. Frank Hastings (444-2552)
117 Minnesota St, El Cajon 92020

ESCONDIDO GARDEN CLUB
Pres: Mrs. Henry Spiess (747-6820)
1943 Rockhoff Lane,Escondido 92026

GROSSMONT GARDEN CLUB
Pres: Mrs. Renee Tucker (465-0167)
6436 Lake Mere Court, San Diego 92119

ICHIYO SCHOOL OF IKEBANA, SAN DIEGO CHAPTER
Dir: Mrs. Haruko Crawford (465-3046)
10411 San Carlos Dr, Spring Valley 92077

IKENOBO CHAPTER OF SAN DIEGO
Pres: Mrs. Charles (Sadako) Oehler (278-5689)
2822 Walker Dr, San Diego 92123

LAKESIDE GARDEN CLUB
Pres: Mrs. Lucy Carender (561-2236)
9282 Riverview, Lakeside 92040

LA MESA GARDEN CLUB
Pres: Mrs. James H. Kester (469-4511)
8383 Fresno Ave, La Mesa 92041

MISSION GARDEN CLUB
Pres: Mrs. Vera Eimer (478-5680)
Potrero Valley Rd, Potrero 92063

NORTH COUNTY ROSE SOCIETY
Pres: Mr. Roy Palmquist (724-3575)
606 East Sunrise Dr, Vista 92083

NORTH COUNTY SHADE PLANT CLUB
Pres: Mrs. Alice Malcolm (757-1108)
3280 Pearl Lane, Oceanside 92054

NORTH SAN DIEGO COUNTY BONSAI CLUB
Pres: Mr. Tom Honda (729-1356)
1563 Chestnut St, Carlsbad 92008

OCEANSIDE GARDEN CLUB
Pres: Mr. Edgar L. Pedrick (439-8947)
1006 Cassidy, Oceanside 92054

PACIFIC BEACH GARDEN CLUB
Pres: Mrs. John E. Poeton (483-2054)
1176 Loring St, San Diego 92109

PALOMAR ORCHID SOCIETY
Pres: Mr. Wallace T. Johnson (743-8674)
1471 Via Valente, Escondido 92025

POWAY VALLEY GARDEN CLUB
Pres: Mrs. Hoyt Jeter (485-0694)
17459 Tam O'Shanter Dr, Poway 92064

QUAIL GARDENS FOUNDATION, INC.
Pres: Mr. Raymond Sodomka (566-9165)
7824 Normal St, La Mesa 92041

RANCHO BERNARDO SEVEN OAKS GARDEN CLUB
Pres: Dr. Edwin Woodhouse (487-4670)
11919 Lomica Dr, San Diego 92128

RANCHO SANTA FE GARDEN CLUB
Pres: Mrs. David R. Somerville (756-2678)
P.O. Box 483, Rancho Santa Fe 92067

SAN DIEGO ASSOCIATION OF PROFESSIONAL HORTICULTURISTS
Pres: Cindy Drake (271-8933)
1121 Saunders Court, San Diego 92131

SAN DIEGO COUNTY BRANCH, NATIONAL FUCHSIA SOCIETY
Pres: Mrs. Annabelle R. Stubbs (439-5175)
1482 Avocado Rd, Oceanside 92054

SAN DIEGUITO BRANCH, AMERICAN FUCHSIA SOCIETY
Pres: Mrs. Lois K. Donahue (273-9677)
3251 Innuit Ave, San Diego 92117

SAN DIEGUITO GARDEN CLUB
Pres: Mrs. John H. Lewis (566-5727)
11330 Vista La Cuestra Dr, San Diego 92131

SAN DIEGO WILD ANIMAL PARK
Hort: Mr. James Gibbins (747-8702)
Rt. 1, Box 725-E, Escondido 92025

SAN MIGUEL BRANCH, AMERICAN BEGONIA SOCIETY
Pres: Mr. R. J. Ammerman (941-0280)
1770 Foothill Dr, Vista 92083

SOGETSU SCHOOL OF SAN DIEGO
Dir: Mrs. Leroy (Sumiko) Lahey (423-1571)
2829 Flax Dr, San Diego 92154

SOLAR GARDEN CLUB
Pres: Mrs. Shirley Rhodes (453-4055)
2630 Lange Ave, San Diego 92122

VISTA GARDEN CLUB
Pres: Mrs. Bernard H. Marks (728-6892)
3764 Olive Hill Rd, Fallbrook 92028

Your flowers never looked better

showcased in Hazard Bric Planters

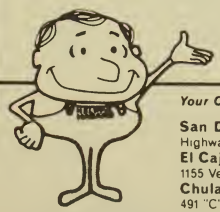
Put your imagination to work . . . create beautiful garden settings of natural beauty and warmth with Hazard Bric. The rich texture and slight color variations in Hazard Bric are designed to capture sunlight, cast deep shadows and blend with every landscape. Mix 'n match Brics to create a variety of paving patterns

Patios • Planters • Walkways • Stepping Stones • Steps



Hazard Shows You How

Stop by one of our Hazard Masonry Centers, and let our friendly, experienced salesmen help you select materials to get started on your next home masonry project. See our literature displays for product design ideas and helpful hints on masonry construction.



Your One-Stop Masonry Center

San Diego
Highway 163 at Friars Road • Telephone 297-4141
El Cajon
1155 Vernon Way • Telephone 448-7411
Chula Vista
491 "C" Street • Telephone 427-2062

BLOC HAZARD BRIC

CALIFORNIA GARDEN (USPS 048-020)
San Diego Floral Association, Inc.
Casa del Prado, Balboa Park
San Diego, CA 92101 USA

SECOND CLASS POSTAGE PAID AT SAN DIEGO, CALIFORNIA



Only you can prevent forest fires. We can't.



Produced by the U.S. Department of Agriculture-Forest Service and Your State Forester in Cooperation with Walt Disney Productions

©MCMXLII Walt Disney Productions